

## Patent Abstracts of Japan

**PUBLICATION NUMBER** 

2002042374

**PUBLICATION DATE** 

08-02-02

APPLICATION DATE

27-07-00

APPLICATION NUMBER

2000227061

APPLICANT: RICOH CO LTD;

INVENTOR: SUGAWARA SATORU;

INT.CL.

: G11B 7/22 G02B 7/00 G11B 7/125

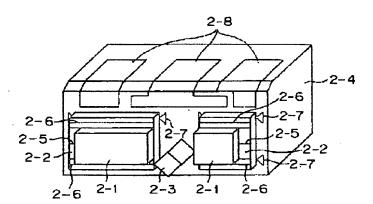
G11B 7/13 G11B 7/135 H01S 5/022

TITLE

INTEGRATED OPTICAL PICKUP

MODULE, ITS MOUNTING TOOL AND

MOUNTING METHOD



## ABSTRACT :

PROBLEM TO BE SOLVED: To provide an integrated optical pickup module, capable of easily realizing highly precise mounting for the light-emitting point of a semiconductor laser and an optical device, without having to use a special semiconductor laser and mounting device.

SOLUTION: In the integrated optical pickup module, which is composed by including plural semiconductor lasers 2-1, there are provided the optical device 2-3 which has plural reflecting surface nearly orthogonal to the heterojunction surface of plural semiconductor lasers 2-1, sub-mounts 2-2 on which the semiconductor lasers 2-1 are mounted, and a module base part 2-4 on which the optical device 2-3 and the sub-mounts 2-2 are mounted, marks 2-5 for positioning with a semiconductor laser beam emitting part are provided in the semiconductor laser mounting surfaces of the sub-mounts 2-2, a part of the marks or other marks 2-6 which are provided at a prescribed interval from the marks are directly viewed from the semiconductor laser mounting surface side even after mounting the semiconductor laser, and the directly visible marks 2-6 as the positioning marks for the optical device and the module base part.

COPYRIGHT: (C)2002,JPO